



SEQ LST.txt  
SEQUENCE LISTING

<110> HENRY, JAMES  
CAHILL, CATHERINE  
YASHPAL, KIRAN

<120> OLIGONUCLEOTIDES AND OTHER MODULATORS OF THE NK-1  
RECEPTOR PATHWAY AND THERAPEUTIC USES THEREOF

<130> 457-117us

<140> 09/930,503

<141> 2001-08-16

<150> 60/226,086

<151> 2000-08-18

<160> 60

<170> PatentIn Ver. 2.1

<210> 1

<211> 311

<212> PRT

<213> Homo sapiens

<400> 1

Met Asp Asn Val Leu Pro Val Asp Ser Asp Leu Ser Pro Asn Ile Ser  
1 5 10 15  
Thr Asn Thr Ser Glu Pro Asn Gln Phe Val Gln Pro Ala Trp Gln Ile  
20 25 30  
Val Leu Trp Ala Ala Ala Tyr Thr Val Ile Val Val Thr Ser Val Val  
35 40 45  
Gly Asn Val Val Val Met Trp Ile Ile Leu Ala His Lys Arg Met Arg  
50 55 60  
Thr Val Thr Asn Tyr Phe Leu Val Asn Leu Ala Phe Ala Glu Ala Ser  
65 70 75 80  
Met Ala Ala Phe Asn Thr Val Val Asn Phe Thr Tyr Ala Val His Asn  
85 90 95  
Glu Trp Tyr Tyr Gly Leu Phe Tyr Cys Lys Phe His Asn Phe Phe Pro  
100 105 110  
Ile Ala Ala Val Phe Ala Ser Ile Tyr Ser Met Thr Ala Val Ala Phe  
115 120 125  
Asp Arg Tyr Met Ala Ile Ile His Pro Leu Gln Pro Arg Leu Ser Ala  
130 135 140  
Thr Ala Thr Lys Val Val Ile Cys Val Ile Trp Val Leu Ala Leu Leu  
145 150 155 160  
Leu Ala Phe Pro Gln Gly Tyr Tyr Ser Thr Thr Glu Thr Met Pro Ser  
165 170 175  
Arg Val Val Cys Met Ile Glu Trp Pro Glu His Pro Asn Lys Ile Tyr  
180 185 190

SEQ LST.txt

Glu Lys Val Tyr His Ile Cys Val Thr Val Leu Ile Tyr Phe Leu Pro  
 195 200 205  
 Leu Leu Val Ile Gly Tyr Ala Tyr Thr Val Val Gly Ile Thr Leu Trp  
 210 215 220  
 Ala Ser Glu Ile Pro Gly Asp Ser Ser Asp Arg Tyr His Glu Gln Val  
 225 230 235 240  
 Ser Ala Lys Arg Lys Val Val Lys Met Met Ile Val Val Val Cys Thr  
 245 250 255  
 Phe Ala Ile Cys Trp Leu Pro Phe His Ile Phe Phe Leu Leu Pro Tyr  
 260 265 270  
 Ile Asn Pro Asp Leu Tyr Leu Lys Lys Phe Ile Gln Gln Val Tyr Leu  
 275 280 285  
 Ala Ile Met Trp Leu Ala Met Ser Ser Thr Met Tyr Asn Pro Ile Ile  
 290 295 300  
 Tyr Cys Cys Leu Asn Asp Arg  
 305 310

<210> 2  
 <211> 1268  
 <212> DNA  
 <213> Homo sapiens

<400> 2  
 gaaaaagcct tccaccctcc tgtctggcct tagaaggacc ctgagcccca ggcgccacga 60  
 caggactctg ctgcagaggg gggttgtgta cagatagtag ggctttaccg cctagcttcg 120  
 aaatggataa cgtcctcccg gtggactcag acctctcccc aaacatctcc actaacacct 180  
 cggaacccaa tcagttcgtg caaccagcct ggcaaatgtt cctttgggca gctgcctaca 240  
 cggtcattgt ggtgacctct gtggtgggca acgtggtagt gatgtggatc atcttagccc 300  
 acaaaagaat gaggacagtg acgaactatt ttctggtgaa cctggccttc gcggaggcct 360  
 ccatggctgc attcaatata gtggtgaact tcacctatgc tgtccacaac gaatggtact 420  
 acggcctgtt ctactgcaag ttccacaact tcttccccat cgccgctgtc ttcgccagta 480  
 tctactccat gacggctgtg gcctttgata ggtacatggc catcatacat cccctccagc 540  
 cccggctgtc agccacagcc accaaagtgg tcatctgtgt catctgggtc ctggctctcc 600  
 tgcctggcctt ccccagggc tactactcaa ccacagagac catgccagc agagtcgtgt 660  
 gcatgatcga atggccagag catccgaaca agatttatga gaaagtgtac cacatctgtg 720  
 tgactgtgct gatctacttc ctccccctgc tgggtgattgg ctatgcatac accgtagtgg 780  
 gaatcacact atgggccagt gagatccccg gggactcctc tgaccgctac cacgagcaag 840  
 tctctgccaa gcgcaagggt gtcaaaatga tgattgtcgt ggtgtgcacc ttcgccatct 900  
 gctggctgcc ctccacatc ttcttctcc tgccctacat caaccagat ctctacctga 960  
 agaagtttat ccagcaggtc tacctggcca tcatgtggct ggccatgagc tccaccatgt 1020  
 acaaccccat catctactgc tgcctcaatg acagggtgagg atcccaaccc catgagctct 1080  
 ccaggggcca caagaccatc tacatacaca gtggccaagc ggcatcctaa atgagtaaac 1140  
 ccagctgtga gacaagaggg acaagtgggg actgcagcta acttatcatc acacaactca 1200  
 gcctggctga ttatcacat ccaggaatgg gagcccgag tagactgatt ttcttttttt 1260  
 cttttcca 1268

<210> 3  
 <211> 311  
 <212> PRT  
 <213> Homo sapiens

<400> 3  
 Met Asp Asn Val Leu Pro Val Asp Ser Asp Leu Ser Pro Asn Ile Ser  
 1 5 10 15

SEQ LST.txt

Thr Asn Thr Ser Glu Pro Asn Gln Phe Val Gln Pro Ala Trp Gln Ile  
20 25 30  
Val Leu Trp Ala Ala Ala Tyr Thr Val Ile Val Val Thr Ser Val Val  
35 40 45  
Gly Asn Val Val Val Met Trp Ile Ile Leu Ala His Lys Arg Met Arg  
50 55 60  
Thr Val Thr Asn Tyr Phe Leu Val Asn Leu Ala Phe Ala Glu Ala Ser  
65 70 75 80  
Met Ala Ala Phe Asn Thr Val Val Asn Phe Thr Tyr Ala Val His Asn  
85 90 95  
Glu Trp Tyr Tyr Gly Leu Phe Tyr Cys Lys Phe His Asn Phe Phe Pro  
100 105 110  
Ile Ala Ala Val Phe Ala Ser Ile Tyr Ser Met Thr Ala Val Ala Phe  
115 120 125  
Asp Arg Tyr Met Ala Ile Ile His Pro Leu Gln Pro Arg Leu Ser Ala  
130 135 140  
Thr Ala Thr Lys Val Val Ile Cys Val Ile Trp Val Leu Ala Leu Leu  
145 150 155 160  
Leu Ala Phe Pro Gln Gly Tyr Tyr Ser Thr Thr Glu Thr Met Pro Ser  
165 170 175  
Arg Val Val Cys Met Ile Glu Trp Pro Glu His Pro Asn Lys Ile Tyr  
180 185 190  
Glu Lys Val Tyr His Ile Cys Val Thr Val Leu Ile Tyr Phe Leu Pro  
195 200 205  
Leu Leu Val Ile Gly Tyr Ala Tyr Thr Val Val Gly Ile Thr Leu Trp  
210 215 220  
Ala Ser Glu Ile Pro Gly Asp Ser Ser Asp Arg Tyr His Glu Gln Val  
225 230 235 240  
Ser Ala Lys Arg Lys Val Val Lys Met Met Ile Val Val Val Cys Thr  
245 250 255  
Phe Ala Ile Cys Trp Leu Pro Phe His Ile Phe Phe Leu Leu Pro Tyr  
260 265 270  
Ile Asn Pro Asp Leu Tyr Leu Lys Lys Phe Ile Gln Gln Val Tyr Leu  
275 280 285  
Ala Ile Met Trp Leu Ala Met Ser Ser Thr Met Tyr Asn Pro Ile Ile  
290 295 300  
Tyr Cys Cys Leu Asn Asp Arg  
305 310

<210> 4  
<211> 1268  
<212> DNA  
<213> Homo sapiens

SEQ LST.txt

<400> 4

```

gaaaaagcct tccaccctcc tgtctggctt tagaaggacc ctgagcccca ggcgccacga 60
caggactctg ctgcagaggg gggttgtgta cagatagtag ggctttaccg cctagcttcg 120
aaatggataa cgtcctcccc gtggactcag acctctcccc aaacatctcc actaacacct 180
cggaacccaa tcagttcgtg caaccagcct ggcaaattgt cctttgggca gctgcctaca 240
cggtcattgt ggtgacctct gtggtgggca acgtggtagt gatgtggatc atcttagccc 300
acaaaagaat gaggacagtg acgaactatt ttctggtgaa cctggccttc gcggaggcct 360
ccatggctgc attcaatata gtggtgaact tcacctatgc tgtccacaac gaatggtact 420
acggcctgtt ctactgcaag ttccacaact tcttccccat cgccgctgtc ttcgccagta 480
tctactccat gacggctgtg gcctttgata ggtacatggc catcatacat cccctccagc 540
cccggctgtc agccacagcc accaaagtgg tcatctgtgt catctgggtc ctggctctcc 600
tgctggcctt cccccagggc tactactcaa ccacagagac catgcccagc agagtcgtgt 660
gcatgatcga atggccagag catccgaaca agatttatga gaaagtgtac cacatctgtg 720
tgactgtgct gatctacttc ctccccctgc tgggtattgg ctatgcatac accgtagtgg 780
gaatcacact atgggccagt gagatccccg gggactcctc tgaccgctac cacgagcaag 840
tctctgccaa gcgcaagggt gtcaaaatga tgattgtcgt ggtgtgcacc ttcgccatct 900
gctggctgcc ctccacatc ttcttctctc tgccctacat caaccagat ctctacctga 960
agaagtttat ccagcaggct tacctggcca tcatgtggct ggccatgagc tccacctatg 1020
acaaccccat catctactgc tgcctcaatg acagggtagg atcccaaccc catgagctct 1080
ccaggggcca caagaccatc tacatacaca gtggccaagc ggcatacctaa atgagtaaac 1140
ccagctgtga gacaagaggg acaagtgggg actgcagcta acttatcatc acacaactca 1200
gcctggctga ttatcaccat ccaggaatgg gagcccgag tagactgatt ttcttttttt 1260
cttttcca

```

<210> 5

<211> 407

<212> PRT

<213> Homo sapiens

<400> 5

```

Met Asp Asn Val Leu Pro Val Asp Ser Asp Leu Ser Pro Asn Ile Ser
 1              5              10              15

Thr Asn Thr Ser Glu Pro Asn Gln Phe Val Gln Pro Ala Trp Gln Ile
      20              25              30

Val Leu Trp Ala Ala Ala Tyr Thr Val Ile Val Val Thr Ser Val Val
      35              40              45

Gly Asn Val Val Val Met Trp Ile Ile Leu Ala His Lys Arg Met Arg
      50              55              60

Thr Val Thr Asn Tyr Phe Leu Val Asn Leu Ala Phe Ala Glu Ala Ser
      65              70              75              80

Met Ala Ala Phe Asn Thr Val Val Asn Phe Thr Tyr Ala Val His Asn
      85              90              95

Glu Trp Tyr Tyr Gly Leu Phe Tyr Cys Lys Phe His Asn Phe Phe Pro
      100              105              110

Ile Ala Ala Val Phe Ala Ser Ile Tyr Ser Met Thr Ala Val Ala Phe
      115              120              125

Asp Arg Tyr Met Ala Ile Ile His Pro Leu Gln Pro Arg Leu Ser Ala
      130              135              140

Thr Ala Thr Lys Val Val Ile Cys Val Ile Trp Val Leu Ala Leu Leu
      145              150              155              160

Leu Ala Phe Pro Gln Gly Tyr Tyr Ser Thr Thr Glu Thr Met Pro Ser

```

SEQ LST.txt  
170

165

175

Arg Val Val Cys Met Ile Glu Trp Pro Glu His Pro Asn Lys Ile Tyr  
180 185 190

Glu Lys Val Tyr His Ile Cys Val Thr Val Leu Ile Tyr Phe Leu Pro  
195 200 205

Leu Leu Val Ile Gly Tyr Ala Tyr Thr Val Val Gly Ile Thr Leu Trp  
210 215 220

Ala Ser Glu Ile Pro Gly Asp Ser Ser Asp Arg Tyr His Glu Gln Val  
225 230 235 240

Ser Ala Lys Arg Lys Val Val Lys Met Met Ile Val Val Val Cys Thr  
245 250 255

Phe Ala Ile Cys Trp Leu Pro Phe His Ile Phe Phe Leu Leu Pro Tyr  
260 265 270

Ile Asn Pro Asp Leu Tyr Leu Lys Lys Phe Ile Gln Gln Val Tyr Leu  
275 280 285

Ala Ile Met Trp Leu Ala Met Ser Ser Thr Met Tyr Asn Pro Ile Ile  
290 295 300

Tyr Cys Cys Leu Asn Asp Arg Phe Arg Leu Gly Phe Lys His Ala Phe  
305 310 315 320

Arg Cys Cys Pro Phe Ile Ser Ala Gly Asp Tyr Glu Gly Leu Glu Met  
325 330 335

Lys Ser Thr Arg Tyr Leu Gln Thr Gln Gly Ser Val Tyr Lys Val Ser  
340 345 350

Arg Leu Glu Thr Thr Ile Ser Thr Val Val Gly Ala His Glu Glu Glu  
355 360 365

Pro Glu Asp Gly Pro Lys Ala Thr Pro Ser Ser Leu Asp Leu Thr Ser  
370 375 380

Asn Cys Ser Ser Arg Ser Asp Ser Lys Thr Met Thr Glu Ser Phe Ser  
385 390 395 400

Phe Ser Ser Asn Val Leu Ser  
405

<210> 6  
<211> 1766  
<212> DNA  
<213> Homo sapiens

<400> 6  
aattcagagc caccgcgggc aggcgggcag tgcattccaga agcgttttata ttctgagcgc 60  
cagttcagct ttcaaaaaga gtgctgccc aaaaaagcct tccaccctcc tgcctgcttt 120  
agaaggaccc tgagccccag gcgccagcca caggactctg ctgcagagg gggttggtga 180  
cagatagtag gctttacgcc tagcttcgaa atggataacg tcctcccggg ggactcagac 240  
ctctcccca acatctccac taacacctcg gaaccaatc agttcgtgca accagcctgg 300  
caaattgtcc tttgggcagc tgcctacacg gtcattgtgg tgacctctgt ggtgggcaac 360  
gtggtagtga tgtggatcat cttagccac aaaagaatga ggacagtga gaactatatt 420  
ctggtgaacc tggccttcgc ggaggcctcc atggctgcat tcaatacagt ggtgaacttc 480  
acctatgctg tccacaacga atggtactac ggcctgttct actgcaagtt ccacaacttc 540

SEQ LST.txt

```

tttcccatcg cgcgtgtctt cgccagtatc tactccatga cggctgtggc ctttgatagg 600
tacatggcca tcatacatcc cctccagccc cggctgtcag ccacagccac caaagtgggc 660
atctgtgtca tctgggtcct ggctctcctg ctggccttcc cccagggcta ctactcaacc 720
acagagacca tgcccagcag agtcgtgtgc atgatcgaat ggccagagca tccgaacaag 780
atttatgaga aagtgtacca catctgtgtg actgtgctga tctacttcct cccctgctg 840
gtgattggct atgcatacac cgtagtggga atcacactat gggccagtga gatccccggg 900
gactcctctg accgctacca cgagcaagtc tctgccaagc gcaagggtgg tcaaaatgatg 960
attgtcgtgg tgtgcacctt cgccatctgc tggctgccct tccacatctt cttcctcctg 1020
ccctacatca acccagatct ctacctgaag aagtttatcc agcagggtcta cctggccatc 1080
atgtggctgg ccatgagctc caccatgtac aacccccatca tctactgctg cctcaatgac 1140
aggttccgctc tgggcttcaa gcatgccttc cgggtgtgcc ctttcatcag cgccggcgag 1200
tatgaggggc tggaaatgaa atccaccggg tatctccaga cccagggcag tgtgtacaaa 1260
gtcagccgccc tggagaccac catctccaca gtgggtggggg cccacgagga ggagccagag 1320
gacggcccca aggccacacc ctctgccctg gacctgacct ccaactgctc ttcacgaagt 1380
gactccaaga ccatgacaga gagcttcagc ttctcctcca atgtgctctc ctaggccaca 1440
gggcctttgg cagggtgcagc ccccactgcc tttgacctgc ctcccttcat gcatggaaat 1500
tcccttcatc tggaaaccatc agaaacaccc tcacactggg acttgcaaaa agggtcagta 1560
tgggttaggg aaaacattcc atccttgagt caaaaaatct caattcttcc ctatctttgc 1620
cacctcatg ctgtgtgact caaaccaaat cactgaactt tgctgagcct gtaaaaataaa 1680
aggtcggacc agcttttctt caagagccca atgcattcca tttctggaag tgactttggc 1740
tgcattgcag tgctcatttc aggatg 1766

```

<210> 7  
 <211> 407  
 <212> PRT  
 <213> Homo sapiens

<400> 7  
 Met Asp Asn Val Leu Pro Val Asp Ser Asp Leu Ser Pro Asn Ile Ser  
 1 5 10 15  
 Thr Asn Thr Ser Glu Pro Asn Gln Phe Val Gln Pro Ala Trp Gln Ile  
 20 25 30  
 Val Leu Trp Ala Ala Ala Tyr Thr Val Ile Val Val Thr Ser Val Val  
 35 40 45  
 Gly Asn Val Val Val Met Trp Ile Ile Leu Ala His Lys Arg Met Arg  
 50 55 60  
 Thr Val Thr Asn Tyr Phe Leu Val Asn Leu Ala Phe Ala Glu Ala Ser  
 65 70 75 80  
 Met Ala Ala Phe Asn Thr Val Val Asn Phe Thr Tyr Ala Val His Asn  
 85 90 95  
 Glu Trp Tyr Tyr Gly Leu Phe Tyr Cys Lys Phe His Asn Phe Phe Pro  
 100 105 110  
 Ile Ala Ala Cys Phe Ala Ser Ile Tyr Ser Met Thr Ala Val Ala Phe  
 115 120 125  
 Asp Arg Tyr Met Ala Ile Ile His Pro Leu Gln Pro Arg Leu Ser Ala  
 130 135 140  
 Thr Ala Thr Lys Val Val Ile Cys Val Ile Trp Val Leu Ala Leu Leu  
 145 150 155 160  
 Leu Ala Phe Pro Gln Gly Tyr Tyr Ser Thr Thr Glu Thr Met Pro Ser  
 165 170 175  
 Arg Val Val Cys Met Ile Glu Trp Pro Glu His Pro Asn Lys Ile Tyr

SEQ LST.txt

180	185	190
Glu Lys Val Tyr His Ile Cys Val Thr Val Leu Ile Tyr Phe Leu Pro		
195	200	205
Leu Leu Val Ile Gly Tyr Ala Tyr Thr Ile Val Gly Ile Thr Leu Trp		
210	215	220
Ala Ser Glu Ile Pro Gly Asp Ser Ser Asp Arg Tyr His Glu Gln Val		
225	230	235
Ser Ala Lys Arg Lys Val Val Lys Met Met Ile Val Val Val Cys Thr		
245	250	255
Phe Ala Ile Cys Trp Leu Pro Phe His Ile Phe Phe Leu Leu Pro Tyr		
260	265	270
Ile Asn Pro Asp Leu Tyr Leu Lys Lys Phe Ile Gln Gln Val Tyr Leu		
275	280	285
Ala Ile Met Trp Leu Ala Met Ser Ser Thr Met Tyr Asn Pro Ile Ile		
290	295	300
Tyr Cys Cys Leu Asn Asp Arg Phe Arg Leu Gly Phe Lys His Ala Phe		
305	310	315
Arg Cys Cys Pro Phe Ile Ser Ala Gly Asp Tyr Glu Gly Leu Glu Met		
325	330	335
Lys Ser Thr Arg Tyr Leu Gln Thr Gln Gly Ser Val Tyr Lys Val Ser		
340	345	350
Arg Leu Glu Thr Thr Ile Ser Thr Val Val Gly Ala His Glu Glu Glu		
355	360	365
Pro Glu Asp Gly Pro Lys Ala Thr Pro Ser Ser Leu Asp Leu Thr Ser		
370	375	380
Asn Cys Ser Ser Arg Ser Asp Ser Lys Thr Met Thr Glu Ser Phe Ser		
385	390	395
Phe Ser Ser Asn Val Leu Ser		
405		

<210> 8  
 <211> 1230  
 <212> DNA  
 <213> Homo sapiens

<400> 8

atggataacg	tcctcccggg	ggactcagac	ctctcccaa	acatctccac	taacacctcg	60
gaacccaatc	agttcgtgca	accagcctgg	caaattgtcc	tttgggcagc	tgcttacacg	120
gtcattgtgg	tgacctctgt	ggtgggcaac	gtggtagtga	tgtggatcat	cttagccac	180
aaaagaatga	ggacagtga	gaactatatt	ctggtgaacc	tggccttcgc	ggaggcctcc	240
atggctgcat	tcaatacagt	ggtgaacttc	acctatgctg	tccacaacga	atggtactac	300
ggcctgttct	actgcaagtt	ccacaacttc	ttccccatcg	ccgcttgctt	cgccagtatc	360
tactccatga	cggctgtggc	ctttgatagg	tacatggcca	tcatacatcc	cctccagccc	420
cggctgtcag	ccacagccac	caaagtggtc	atctgtgtca	tctgggtcct	ggctctcctg	480
ctggccttcc	cccagggcta	ctactcaacc	acagagacca	tgcccagcag	agtcgtgtgc	540
atgatcgaat	ggccagagca	tccgaacaag	atztatgaga	aagtgtacca	catctgtgtg	600
actgtgctga	tctacttcct	ccccctgctg	gtgattggct	atgcatacac	catagtggga	660
atcacactat	gggccagtga	gatccccggg	gactcctctg	accgctacca	cgagcaagtc	720

SEQ LST.txt

tctgccaaagc	gcaaggtggt	caaaatgatg	attgtcgtgg	tgtgcacctt	cgccatctgc	780
tggctgccct	tccacatctt	cttcctcctg	ccctacatca	acccagatct	ctacctgaag	840
aagtttatcc	agcaggtcta	cctggccatc	atgtggctgg	ccatgagctc	caccatgtac	900
aaccccatca	tctactgctg	cctcaatgac	aggttccgtc	tgggcttcaa	gcatgccttc	960
cggtgctgcc	ccttcatcag	cgccggcgac	tatgaggggc	tggaaatgaa	atccaccggg	1020
tatctccaga	cccagggcag	tgtgtacaaa	gtcagccgcc	tggagaccac	catctccaca	1080
gtggtggggg	cccacgagga	ggagccagag	gacggcccca	aggccacacc	ctcgtccctg	1140
gacctgacct	ccaactgctc	ttcacgaagt	gactccaaga	ccatgacaga	gagcttcagc	1200
ttctcctcca	atgtgctctc	ctagggatcc				1230

<210> 9  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 9  
 gacgttatcc attttggggc a 21

<210> 10  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 10  
 gacgttatcc attttggggc 20

<210> 11  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 11  
 gacgttatcc attttgggg 19

<210> 12  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 12  
 gacgttatcc attttggg 18

<210> 13  
 <211> 17  
 <212> DNA  
 <213> Artificial Sequence



SEQ LST.txt

<220>		
<223>	Description of Artificial Sequence: Primer	
<400>	13	
	gacgttatcc attttg	17
<210>	14	
<211>	16	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence: Primer	
<400>	14	
	gacgttatcc attttg	16
<210>	15	
<211>	15	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence: Primer	
<400>	15	
	gacgttatcc atttt	15
<210>	16	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence: Primer	
<400>	16	
	acgttatcca ttttggggca	20
<210>	17	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence: Primer	
<400>	17	
	cgttatccat tttggggca	19
<210>	18	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence: Primer	

<400> 18  
gttatccatt ttggggca 18

<210> 19  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 19  
ttatccattt tggggca 17

<210> 20  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 20  
tatccatttt ggggca 16

<210> 21  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 21  
atccattttg gggca 15

<210> 22  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 22  
ttccacatct tcttcctcct 20

<210> 23  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 23  
tgatgattgt cgtggtgtgc a 21

SEQ LST.txt

<210> 24  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <223> Description of Artificial Sequence: Primer  
 <400> 24  
 gcaagtctct gccaagcgca a 21

<210> 25  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <223> Description of Artificial Sequence: Primer  
 <400> 25  
 ttgatgtagg gcaggaggaa 20

<210> 26  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <223> Description of Artificial Sequence: Primer  
 <400> 26  
 tgcacaccac gacaatcatc a 21

<210> 27  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <223> Description of Artificial Sequence: Primer  
 <400> 27  
 catagtgtga ttcccactac 20

<210> 28  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
 <220>  
 <223> Description of Artificial Sequence: Primer  
 <400> 28  
 atgcatagcc aatcaccagc a 21

<210> 29

SEQ LST.txt

```

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 29
actttggtgg ctgtggctga
20

<210> 30
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 30
ggatgtatga tggccatgta
20

<210> 31
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 31
catggagtag atactggcga a
21

<210> 32
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 32
gaagaagttg tggaacttgc a
21

<210> 33
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 33
gtagacctgc tggataaact t
21

<210> 34
<211> 24
<212> DNA
<213> Artificial Sequence

```

SEQ LST.txt

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 34  
 acagtagatg atggggttgt acat 24

<210> 35  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 35  
 gtgtacagat agtaggctt 19

<210> 36  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 36  
 cctcctgtct ggctttagaa 20

<210> 37  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 37  
 aaccatact gaccctttt 19

<210> 38  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 38  
 caaggatgga atgttttccc t 21

<210> 39  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

SEQ LST.txt

<400> 39  
tctctacctg aagaagtt 18

<210> 40  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 40  
ttcgaaatgg ataacgtcct c 21

<210> 41  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 41  
aggaggaaga agatgtggaa 20

<210> 42  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 42  
tgcacaccac gacaatcatc a 21

<210> 43  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 43  
ttgcgcttgg cagagacttg c 21

<210> 44  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Primer

<400> 44  
ttcctcctgc cctacatcaa 20

SEQ LST.txt

<210> 45  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Primer  
  
 <400> 45  
 tgatgattgt cgtggtgtgc a 21  
  
 <210> 46  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Primer  
  
 <400> 46  
 gtagtgggaa tcacactatg 20  
  
 <210> 47  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Primer  
  
 <400> 47  
 tgctggtgat tggctatgca t 21  
  
 <210> 48  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Primer  
  
 <400> 48  
 tcagccacag ccaccaaagt 20  
  
 <210> 49  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: Primer  
  
 <400> 49  
 tacatggcca tcatacatcc 20  
  
 <210> 50

SEQ LST.txt

<211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 50  
 ttcgccagta tctactccat g 21

<210> 51  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 51  
 tgcaagttcc acaacttctt c 21

<210> 52  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 52  
 aagtttatcc agcaggtcta c 21

<210> 53  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 53  
 atgtacaacc ccatcatcta c 21

<210> 54  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 54  
 aagcctacta tctgtacac 19

<210> 55  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence



SEQ LST.txt

<220>  
 <223> Description of Artificial Sequence: Primer  
 <400> 55  
 ttctaaagcc agacaggagg 20

<210> 56  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer  
 <400> 56  
 aaaagggtca gtatgggtt 19

<210> 57  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer  
 <400> 57  
 agggaaaaca ttccatcctt g 21

<210> 58  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer  
 <400> 58  
 aacttcttca ggtagaga 18

<210> 59  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Primer  
 <400> 59  
 gaggacgtta tccatttcga a 21

<210> 60  
 <211> 11  
 <212> PRT  
 <213> Homo Sapiens

<400> 1

Arg Pro Lys Pro Gly Gln Phe Phe Gly Leu Met  
1 5 10 SEQ LST.txt